




# IPS Workshop

26 February 2010

## Climate Change:


### How can Singapore Maintain a Balance between Economic Growth, Greenhouse Gas Emissions and a Habitable Environment?

 **NUS** National University of Singapore  **JKY** Lee Kuan Yew School of Public Policy  **IPS** Institute of Policy Studies

Jebsen & Jessen SEA

Climate Change:  
How can Singapore Maintain a Balance  
between Economic Growth, Greenhouse Gas  
Emissions and a Habitable Environment?

A Corporate Perspective

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04 March 2010 / J. Heinrich Jessen / 2

## Jebsen & Jessen SEA

### Regional Businesses



- :: 8 business activity groupings
- :: 50 operating member companies
- :: 3,000 employees
- :: S\$ 1bn turnover

- Cable Technology
- Chemicals
- Communications
- Life Sciences
- Marketing
- Material Handling
- Packaging
- Technology



## EHS at Jebsen & Jessen SEA

### EHS As Part of Corporate Strategy

- Theme of Management Conference 1993: "Environment"
- Environmental Corporate Commitment
- Environment, Health & Safety Programme since 1995



## EHS at Jebsen & Jessen SEA

### EHS As Part of Corporate Strategy



Jebsen & Jessen (SEA) is a leader in EHS performance and management in the region, with the successful implementation of effective EHS management systems under ISO 14001 and OHSAS 18001 for all member companies.

**Pollution Prevention • Resource Productivity • Responsible Procurement  
Emergency Preparedness • Emergency Response • Education & Training**



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## The Aim for Carbon Neutrality

### Addressing Carbon

**EHS Day discusses Carbon Neutrality  
Programme starting 2008**



The Group is set to launch the Carbon Neutrality Programme from 2008, a decision made during the annual EHS Day meeting on Nov 1, 2007.

The green programme facilitates the monitoring of the Group's carbon emission footprint, to generate awareness for the global issue and set aside funding for internal and external investments on green projects. For now, funding will be made possible shareholder equity.

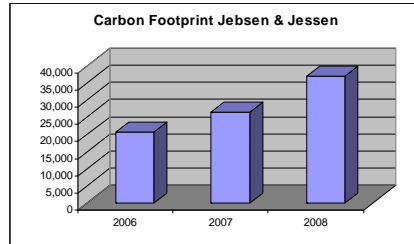


04 March 2010 / J. Heinrich Jessen / 6

## The Aim for Carbon Neutrality

### Addressing Carbon

- The group's carbon footprint has been measured since 2006



## Carbon Neutrality Target and Strategy

### Target

- To become carbon neutral

## Carbon Neutrality Target and Strategy

**Strategy**

```
graph TD; A[Internal carbon reduction programmes] --> C[Carbon/Climate Neutrality]; B[Offset for remaining carbon footprint] --> C;
```

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## Internal Carbon Reduction Programmes



**Action Steps**


- **Hired a Carbon Neutrality Executive**
- **Researched and started a number of initiatives**
- **Several potential projects encountered obstacles**

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Obstacles to Initiatives		
<b>Idea</b>	Install a solar PV system on the roof of one of our Singapore manufacturing facilities to generate 20 % of the plant's electricity	
<b>Actions</b>	<p>Compared several contractors to select the most cost-effective</p> <p>Received Board Approval for the investment, on the basis that a certain percentage of the investment would be covered by a grant so as to reach an ROI of below 10 years</p> <p>Applied for government grant from NEA (GREET) and EDB (Solar Capability Scheme)</p>	
<b>Obstacles</b>	<p>Not eligible for EDB grant as their scheme focuses on new buildings</p> <p>Not eligible for NEA grant as the calculated ROI is beyond 7 years</p>	
<b>Result / Conclusion</b>	Project cancelled due to insufficient financial justification	










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Obstacles to Initiatives		
<b>Idea</b>	Convert existing service vehicle fleet fuel system from petrol driven to CNG driven	
<b>Actions</b>	<p>Found qualified supplier who would be able to carry out the conversion</p> <p>Determined the investment to be financially viable</p>	
<b>Obstacles</b>	<p>Too few CNG filling stations to allow for efficient and timely fuelling</p>	
<b>Result / Conclusion</b>	Project shelved	










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## Obstacles to Initiatives

<b>Idea</b>
Set up CNG station for company cars on one of our sites, project to be financed by selling CNG to the public
<b>Actions</b>
<p>Proposal for CNG station shows reasonable ROI if also selling CNG to the public</p> <p>Consultation with all relevant government organisations showed legal feasibility</p> <p>Negotiations with taxi companies to use CNG station for ensuring a minimum purchase quantity</p> 
<b>Obstacles</b>
Gas supplier refused to deliver more gas to our site for public sale 
<b>Result / Conclusion</b>
Project cancelled due to lack of gas supplier support

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## Obstacles to Initiatives


<b>Idea</b>												
Use gas to fuel boilers in packaging production process												
<b>Actions</b>												
<p>Conducted a study to determine the price of gas, fuel oil and coal in VND/1000kcal</p> 												
<b>Obstacles</b>												
<table border="1"> <thead> <tr> <th>Year</th> <th>Gas (bottle)</th> <th>Fuel Oil</th> <th>Coal</th> </tr> </thead> <tbody> <tr> <td>2006</td> <td>850</td> <td>470</td> <td>200</td> </tr> <tr> <td>2008</td> <td>2,500</td> <td>1,400</td> <td>600</td> </tr> </tbody> </table>	Year	Gas (bottle)	Fuel Oil	Coal	2006	850	470	200	2008	2,500	1,400	600
Year	Gas (bottle)	Fuel Oil	Coal									
2006	850	470	200									
2008	2,500	1,400	600									
<b>Result / Conclusion</b>												
Idea abandoned as coal subsidy creates significant disincentive to use gas. Possible CDM opportunity.												

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**The Corporate Perspective**

**Wish List**


- **Set carbon-weighted energy prices**

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**The Corporate Perspective**

**Wish List**

- **Set carbon-weighted energy prices**
- **Remove energy efficiency dis-incentives – electricity too cheap!**

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## The Corporate Perspective

### Wish List

- Set carbon-weighted energy prices
- Remove energy efficiency dis-incentives – electricity too cheap!
- **Provide low-carbon infrastructure**

## The Corporate Perspective

### Wish List

- Set carbon-weighted energy prices
- Remove energy efficiency dis-incentives – electricity too cheap!
- Provide low-carbon infrastructure
- **Tax carbon intensity**

## The Corporate Perspective

### Wish List

- Set carbon-weighted energy prices
- Remove energy efficiency dis-incentives – electricity too cheap!
- Provide low-carbon infrastructure
- Tax carbon intensity
- **Reach and ratify global carbon agreements**

## The Corporate Perspective

### Wish List

- Set carbon-weighted energy prices
- Remove energy efficiency dis-incentives – electricity too cheap!
- Provide low-carbon infrastructure
- Tax carbon intensity
- Reach and ratify global carbon agreements
- **Enforce laws strictly and build consequence management**

## The Corporate Perspective

### Wish List

- Set carbon-weighted energy prices
- Remove energy efficiency dis-incentives – electricity too cheap!
- Provide low-carbon infrastructure
- Tax carbon intensity
- Reach and ratify global carbon agreements
- Enforce laws strictly and build consequence management

**SUCCESS FACTORS:** { **CRITICAL MASS  
LEVEL PLAYING FIELD**

*Thank You*